

Environmental Health

Washougal Compressor Station, Clark County, WA HEALTH CONSULTATION FINDINGS

INTRODUCTION

The State Department of Health (DOH) has conducted an evaluation of contaminants in air from the Washougal Compressor Station in Clark County. The purpose of the evaluation is to determine whether those contaminants pose a health hazard to nearby residents who have expressed health concerns they feel are related to the station.

A Health Consultation document was prepared to present the findings of the evaluation. This fact sheet summarizes DOH's Health Consultation findings and recommendations for protecting public health. You can request a copy of the Health Consultation by calling the number on the back of this fact sheet.

BACKGROUND

The compressor station was built in 1971 to move natural gas through a pipeline between gas fields in Canada and New Mexico. The compressor has an internal combustion engine and a turbine that emit pollutants through exhaust stacks. A facility about 750 feet from the compressor station is also used to add a chemical, mercaptan to the gas to give it an odor.

EXPOSED POPULATION

Air contaminants from the compressor station were predicted to flow primarily to the north and east. Accordingly, a "worst-case" exposure was evaluated for residents living north and east of the station. Exposure to the south was also evaluated due to health complaints received from a resident living south of the station.

Location

1309 NE Brown Road,
north of Washougal

However, the home that bordered the station to the north has been purchased by the station owners and will not be occupied. Also the home to the east has not been occupied.

When determining health risk related to environmental exposures, there are always segments of the population that are more likely to experience harmful health effects. Young children, the elderly, and asthmatics are often more susceptible to environmental contaminants than the general population.

CONTAMINANTS OF CONCERN

The Southwest Air Pollution Control Authority used computer modeling to determine the levels of several contaminants that would be expected in air at nearby residences when the compressor station was operating. There were two contaminants of concern, formaldehyde and nitrogen oxides (nitrogen dioxide) that required further evaluation. These contaminants are easily found at low concentrations in rural areas due to combustion of fossil fuels from sources such as vehicles or industrial operations.

FORMALDEHYDE

Exposure to the maximum level of formaldehyde predicted for off-site locations to the north and east poses a very small increase in cancer risk. Formaldehyde levels estimated to the south of the compressor station are not expected to result in a significant cancer risk. Non-cancer health effects are not expected.

A very small increase in cancer risk is defined as one additional cancer in an exposed population of 100,000, averaged over a 28 year period.

It is important to be aware that formaldehyde is everywhere in outdoor and indoor air. The presence of formaldehyde in our environment is called background levels. Formaldehyde background levels have been found at higher levels in other rural areas around the country, than those estimated near the station. Therefore, DOH feels the station's air contaminants will not contain significant amounts of formaldehyde above normal background levels.

NITROGEN OXIDES

Nitrogen oxides can come from both outdoor and indoor sources such as gas stoves. Levels of nitrogen oxides modeled for the station were well below regulatory standards and are not expected to impact health. In fact, recent stack height increases at the compressor station should reduce exposures to these contaminants.

Exposure to nitrogen oxides over long periods of time can cause harm to children's respiratory systems. With other sources of nitrogen oxides present, it's possible, but unlikely, that the station's air contaminants will cause neighborhood children to have breathing problems.

OTHER SOURCES OF AIR POLLUTION

There are two other facilities (a paper mill and an aluminum reduction plant) near the station, plus the odorizing facility that is used to add mercaptan to the natural gas. Air contaminants from these facilities should be evaluated to determine the impact on human health.

HEALTH MESSAGES

No apparent public health hazard exists from past, current or future exposures to air contaminants coming from the Washougal Compressor Station.

It is possible that sensitive individuals living near the station, with existing respiratory problems, could experience harmful respiratory effects due to combined contaminants from other sources in the neighborhood.

Air contaminants released from other sources in the area need to be evaluated.

FUTURE ACTIVITIES

Ecology is currently evaluating the impact of other air contaminant sources in the neighborhood. DOH will evaluate additional data as it is available. All health findings will be shared with impacted residents.



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